TITOTACO (CAMOUNT) 1 - -

Solid with rectangular sides......Volume=length×width×height

Vyunder:
Area (exclusive of that of ends)=3.1416×diameter×height
Volume=0.7854×diameter×diameter×height

Circular No. 55, of the Bureau of Standards, entitled ("Measurements for the Household," contains in popular form a large amount of information which is very useful about the home. In addition to discussing weighing and measuring as done in the up-to-date kitchen, this circular treats of the measurement and economical use of heat, light, gas, electricity, water, time, etc. Copies may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., at 15 cents each.

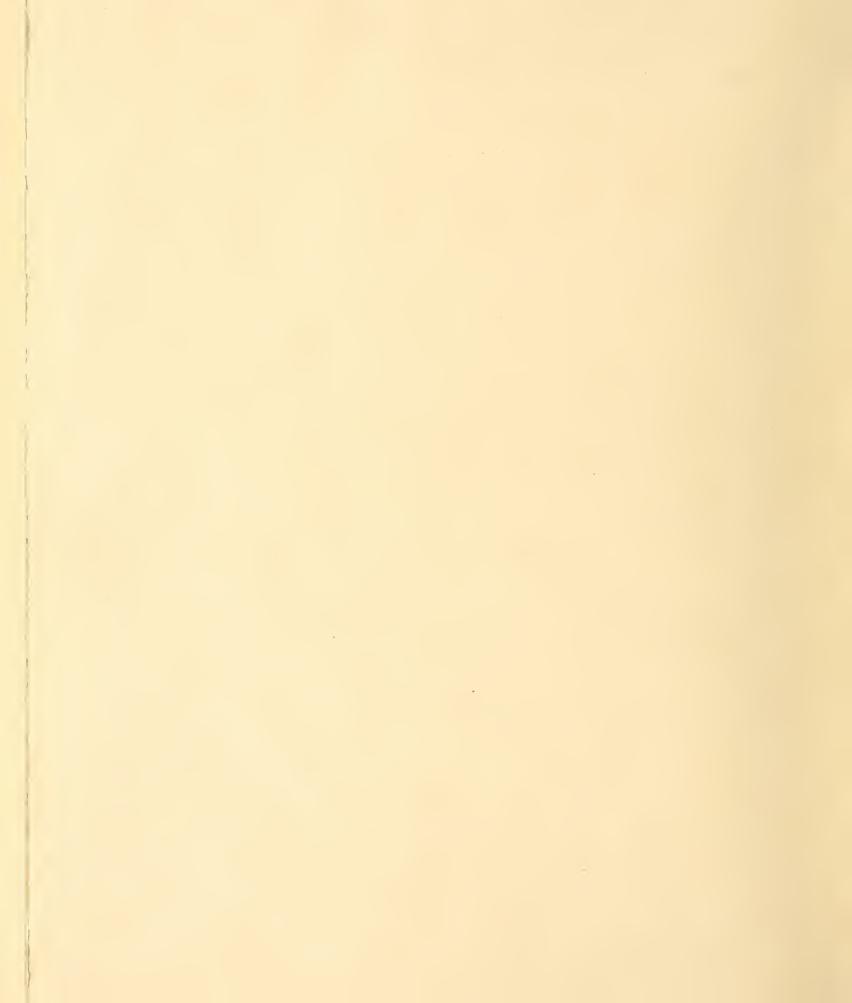
HEIGHTS AND WEIGHTS OF CHILDREN

11098-1001	yr. mo. Atbirth 6 6 7 7 8 9 10	AGE
00 00 00 00 00 00 00 00 00 00 00 00 00	2000 2000 2000 2000 2000 2000 2000 200	Height
74.6 75.9 76.8 79.1 79.1 81.9 82.9 83.5 84.4	centi- meters 52.3 59.7 67.3 69.2 70.2 71.4 72.4 73.7	
21 14 22 14 23 10 23 10 24 2 24 8 24 10 25 12 25 12 26 14	7 10 13 18 19 19 20 10 20 14 21 6	BOYS
9.92 10.38 10.43 10.72 10.72 11.94 11.17 11.15 11.68 12.19	kilograms 3.45 5.90 8.16 8.68 8.96 9.24 9.47 9.70	Weight
\$2 \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$	200 20 20 20 20 20 20 20 20 20 20 20 20	Height
881.9 881.9 882.9	centi- meters 52.1 55.9 65.7 67.3 70.2 70.2 72.1	
20 12 21 14 22 14 22 14 22 14 22 15 16 25	lbs. oz. 7 3 3 13 0 15 12 15 15 15 15 15 2 20 2	GIRLS
9.41 9.52 9.53 9.92 10.26 10.38 10.60 10.77 10.94 11.43 11.45	kilograms 3.25 5.90 7.60 7.88 8.28 8.84 9.13	Weight
165443211100076544	97. 22.22.22.22.22.22.22.22.22.22.22.22.22	AGE
55555555555555555555555555555555555555	######################################	He
100.3 105.7 111.1 111.1 116.2 121.3 126.4 131.4 135.3 140.0 145.4 152.1 165.1	centi- meters 85.7 88.3 89.9 91.8 94.3 96.2 98.1	Height BOYS
35 14 41 2 45 3 45 3 59 3 59 3 65 5 65 5 67 6 70 3 14 11 107 2	70 S S S S S S S S S S S S S S S S S S S	
16.27 22.50 22.25 22.45 23.46 31.84 43.05	. kilograms 12.30 13.15 13.38 13.89 14.63 15.02 15.31 15.65	Weight
61942200000000000000000000000000000000000	inch(6) 333333333333333333333333333333333333	He
99.1 1104.8 1110.2 1115.6 1121.0 125.4 135.6 1441.9 148.0 1152.1 155.3 155.3	centi- meters 84.8 86.0 88.0 90.5 90.5 91.8	GIRLS
33 12 443 35 572 8 62 62 62 16 63 16 63 16 64 7 65 16 65	75	Weight
15.31 18.01 19.64 21.55 23.59 28.59 28.30 31.21 40.28 40.28 50.80	hilograms 11.96 12.86 12.81 13.21 13.24 14.34 14.34 14.34	ht

which should be taken into account in using the above figures to judge normal development. The data for this table were furnished by the Children's Bureau, United States Department of Labor, and is collated from such leading authorities as Holt, Crum, Bowditch, and others. There is a variation in height and weight of healthy children of the same age

[OVER]

11-7323



DEPARTMENT OF COMMERCE BUREAU OF STANDARDS S. W. STRATTON, Director

MISCELLANEOUS PUBLICATIONS—NO. 39

HOUSEHOLD WEIGHTS AND MEASURES

The object of this card is to present in convenient form the weights and measures tables most useful for household 1 purposes.

In addition to the capacity measures illustrated, every kitchen should be provided with a good household weights and measures test set. This will be found indispensable in checking the amounts of commodities purchased and very useful for a variety of other purposes. A complete set comprises a weighing scale of from 10 to 30 pounds capacity or more graduated to 1 ounce or less, a set of liquid measures, a yard measure or a tape 3 or 6 feet in length, and, perhaps, a set of dry measures. These pieces should be of simple but rugged construction and of satisfactory accuracy and should, whenever possible, be tested by and bear the seal of a weights and measures official.

Common Kitchen Measures, = 1 tablespoon. EQUIVALENTS OF CAPACITY. = 2 cups. (All measures fevel full,) 16 tablespoons 2 gills 1/2 liquid pint 8 fluid ounces 1 liquid pint 16 fluid ounces 3 teaspoons



Dry Measure.

			es).		
			1 gallon (231 cubic incbes).		
			1 cubi		
	ند	ť	оп (23	rel.	= 1 hodehoad
3 = 1 gill.	1 pint.	I quart.	1 gall	1 bar	1 hod
11	ij.	H	11	I	
4 fluid ounces			ts	SU	-10
Auid	gills	2 pints	quar	314 gallons	2 harrels
4	4	7	4	113	~

Liquid Measure.

The pint and quart dry measures are about 16 per cent larger than the pint and quart liquid measures.

Avoirdupois Weight.

25 pounds = 1 short quarte	28 pounds == 1 long quarter		4 quarters = 1 hundredweight. Short hundredweight = 100 pou Long hundredweight = 112 pou	20 hundredweight = 1 ton. Short ton = 2,000 pounds.
$27\frac{1}{3}$ grains = 1 dram.	16 drams = 1 ounce.	16 ounces = 1 pound.	4 quarters = 1 hundredweight.	20 hundredweight = 1 to

poroximate Weighte

Long ton = 2,240 pounds

 $= \frac{1}{2}$ pound. = 5 ounces.

(stemmed): s (cleaned): umbs (stale):

d meat

	Pounds			
per husbel.	per husbel.			
Apples 48		Ice:		Rice: 1
Beans 60	Peanuts 22	I cubic foot	= 57.2 pounds.	Cornme
Beets 60	Pears 58	30 cubic inches	= 1 pound.	Raisins
Carrots 50	Peas (dried) 60	Sugar, granulated:		1 cu
Cranberries, 32	Peas (green, unshelled 56	I cup	0	Curran
Cucumbers 48	Potatoes (white) 60	Butter: 1 cup	ı	1 cut
Onions 57	Potatoes (sweet) 54	Lard: 1 cup	II.	Bread
Parsnips 50	Tomatoes 56	Flour: 1 cup	= } pound.	1 cup
	Turnips 55			Choppe

(packed): 1 cup = ½ pound. These weights are approximate only and should therefore not be used in determining whether correct measure is given or received.

¹ Circular of the Bareau of Standards No. 55, entitled "Measurements for the Household," contains in popular form a large amount of information which is very useful thout the home. In addition to discussing weighing and measurements of done in the up-foodite kirklen, this drivalar tracks of the measurement and economical use of bleat, laftly, and efectively, water, time, etc. Copies may be obtained from the Superintendent of Documents, Covernment Fruting Office, Washington, D. C., at 15 cent code.

INTERNATIONAL METRIC SYSTEM

this the units of mass (GRAM) and capacity (LITER) were derived. All other units are the decimal subdivisions or multiples of these. These three units are simply related, so that for all practical purposes the volume of one kilogram of water (one liter) is equal to one cubic The fundamental unit of the metric system is the METER (the unit of length). From

known, the metric system is understood. The design of the system makes it self-explanatory. The tables of derived units form themselves automatically. No tables need be or should When the meaning of the three units and the six prefixes (shown in second column) is

be memorized.

means "the one-hundredth part of," and "meter" means "the unit of length," so that "centiof the basic unit. The new term is self-defining-for example, "centi-meter." Here "centi" Every other metric term is as easily formed and expresses as clearly its own definite meaning meter" expresses precisely its meaning, "the one-hundredth part of the unit of length." Smaller and larger units are named by combining the proper numeral prefix with the name

MILLI- CENTI- DECI- DEKA- HECTO- KILO-	METER LITER GRAM ARE	Name
.001 .01 .1 .1 .1 .10. .100.	1111	Value
"the thousandth part of" "the hundredth part of" "the tenth part of" "ten times" "one hundred times" "one thousand times"	"the unit of length" "the unit of volume" "the unit of weight" "the unit of area"	Meaning

One meter=39.37 inches (exactly); 1 liter=1.06 quarts (nearly); 1 gram=0.04 avoirdupois ounce (nearly).

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E COMMON MATERIA	4			=
APPROXIMATE WEIGHTS OF SOME COMMON MATERIAL	4			=
E COMMON MATERIALS	4			=
E COMMON MATERIALS	4			=
E COMMON MATERIALS	5			=
E COMMON MATERIALS	5			=
E COMMON MATERIALS	4			=
E COMMON MATERIALS	4			=
E COMMON MATERIALS	4			=
E COMMON MATERIALS	_			=
E COMMON MATERIALS	57			=
E COMMON MATERIALS	<u>6</u>			11 12 13 14 15
E COMMON MATERIALS	<u>6</u>		1 cn	11 12 13 14 15
E COMMON MATERIALS	<u>6</u>	1 Inch	11.	
E COMMON MATERIALS	<u>6</u>	1 inch =	1 cm=-3	=
E COMMON MATERIALS	<u>6</u>	1 1 inch = 2.5	1 cm=.3937	
E COMMON MATERIALS	<u></u>		1 cm=.3937 ir	
E COMMON MATERIALS	<u>6</u>		1 cm=.3937 inch	
E COMMON MATERIALS	<u>6</u>	1	1 cm=.3937 inch	
E COMMON MATERIALS	ි I	1	1 cm=.3937 inch	
E COMMON MATERIALS	ි I		1 cm=.3937 inch	
E COMMON MATERIALS	ි I		1 cm=.3937 inch	

Moist, moderately packed 90 to 100 Soft mud, packed 110 to 120	Earth (common loam): 72 to 80	Charcoal of pine and oak 15 to 30	Anthracite (piled loose) 50 to 57	Coal: Bituminous (piled loose). 44 to 54	Name Pounds per cubic foot	AFFAC
Trap, quarried, in loose piles 107	Sand	Mortar, hardened103	Roughly scabbled mortar	Masonry: Brickwork 100 to 140	Name Pounds per cubic foot	AFFROALMAID WEIGHTS OF SOME COMMON MAIDMANS
Poplar			Manle 3250 to 380 28 to 31	Woods: Fir (balsam)	Name Pounds per 1000 Pounds per board feet cubic foot	MATENIALS



INTERNATIONAL METRIC SYSTEM

The fundamental unit of the metric system is the METER (the unit of length). From this the units of mass (GRAM) and capacity (LITER) were derived. All other units are the decimal subdivisions or multiples of these. These three units are simply related, so that for all practical purposes the volume of one kilogram of water (one liter) is equal to one cubic decimeter.

When the meaning of the three units and the six prefixes (shown in second column) is known, the metric system is understood. The design of the system makes it self-explanatory. The tables of derived units form themselves automatically. No tables need be or should

Smaller and larger units are named by combining the proper numeral prefix with the name of the basic unit. The new term is self-defining—for example, "centi-meter." Here "centi" means "the one-hundredth part of," and "meter" means "the unit of length," so that "centimeter" expresses precisely its meaning, "the one-hundredth part of the unit of length." Every other metric term is as easily formed and expresses as clearly its own definite meaning.

Name	Value	Meaning				
METER	1.	"the unit of length"				
LITER	1.	"the unit of volume"				
GRAM	1.	"the unit of weight"				
ARE	1.	"the unit of area"				
MILLI-	.001	"the thousandth part of"				
CENTI-	.01	"the hundredth part of"				
DECI-	.1	"the tenth part of"				
DEKA-	10.	"ten times"				
HECTO-	100.	"one hundred times"				
KILO-	1000.	"one thousand times"				

One meter=39.37 inches (exactly); 1 liter=1.06 quarts (nearly); 1 gram=0.04 avoirdupois ounce (nearly).



APPROXIMATE WEIGHTS OF SOME COMMON MATERIALS

Name	Pounds per cubic foot		Pounds per cuhic foot	Name Pounds per 1000 hoard leet	Pounds per cuhic foot
Coal: Bituminous (piled loose). Anthracite (piled loose). Coke (piled loose). Charcoal of pine and oak. Earth (common loam): Dry, loose. Moist, moderately packed Soft mud, packed.	50 to 57 23 to 32 15 to 30 72 to 80 90 to 100	Masonry: Brickwork Roughly scabbled mortar rubble Mortar, hardened Sand Gravel Trap, quarried, in loose piles	140 to 150 103 90 to 117 90 to 117	Woods: Fir (balsam)	0 28 to 31 0 39 to 47 0 37 to 56 0 22 to 31 0 23 to 37 0 22 to 31

Solid with rectangular sides......Volume=length×width×height

cynnaer:

Area (exclusive of that of ends)=3.1416×diameter×height Volume=0.7854×diameter×diameter×height

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HEIGHTS AND WEIGHTS OF CHILDREN

		H	OYS				G	IRLS					во	YS			GIR	LS		
AGE	Hel	ght		Welght		He	Helght		Welght		AGE	He	elght		Veight	He	eight	1	Weigl	ıt
yr. mo. Atbirth 3 6 7 8 9 10	inches 209 234 264 274 274 284 284 284 29	centi- meters 52. 3 59. 7 67. 3 69. 2 70. 2 71. 4 72. 4 73. 7	lbs. 7 13 18 19 19 20 20 21	0z. 10 2 12 0 14 6	kilograms 3.45 5.90 8.16 8.68 8.95 9.24 9.47 9.70	inches 20½ 22 25½ 26½ 27 275 275 275 288	centi- meters 52. 1 55. 9 65. 7 67. 3 68. 6 70. 2 70. 8 72. 1	lbs. 7 13 16 17 18 19 19 20	0z, 3 0 12 6 4 2 8	kilograms 3.25 5.90 7.60 7.88 8.28 8.68 8.84 9.13	yr. mo. 2 2 3 2 6 2 9 3 3 3 6 3 9	inches 331 342 355 365 377 378 383 39	eenti- meters 85, 7 88, 3 89, 9 91, 8 94, 3 96, 2 98, 1 99, 1	27 29 29 30 30 32 33 33 1	14.63 15.02	inches 33	centi- meters 84. 8 86. 0 88. 6 90. 5 93. 3 94. 6 96. 5 97. 8	lbs, 26 27 28 29 30 31 32 33	02. 6 4 4 2 8 10 8 4	kilograms 11.96 12.36 12.81 13.21 13.84 14.34 14.74 15.08
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	298 298 304 31 31 31 32 32 32 33 33 33	74.6 75.9 76.8 78.1 79.1 79.7 80.6 81.9 82.9 83.5 84.4 85.4	21 22 23 23 24 24 24 25 25 25 26 27	14 14 10 2 8 10 8 12 12 14	9.92 10.38 10.43 10.72 10.94 11.11 11.57 11.68 11.68 12.19 12.25	2×7 200 300 300 300 310 310 310 320 320 327	73.3 74.6 74.9 76.5 77.5 78.1 79.1 80.0 81.3 81.9 82.9 83.5	20 21 21 21 22 22 23 23 24 24 25 25	12 10 14 10 14 6 12 2 12 4 10	9,41 9,52 9,81 9,92 10,26 10,38 10,60 10,77 10,94 11,23 11,45 11,62	4 5 6 7 8 9 10 11 12 13 14 15 16	391-000-00-00-00-00-00-00-00-00-00-00-00-0	100. 3 105. 7 111. 1 116. 2 121. 3 126. 4 131. 4 135. 3 140. 0 145. 4 152. 1 158. 1 165. 1	45 49 53 1 50 65 70 76 1 84 1 94	2 18.64 20.50 2 22.27 4 24.45 26.85 5 29.62 31.84 34.88 3 38.46	39 411 435 457 478 478 514 53 557 557 61	99. 1 104. 8 110. 2 115. 6 121. 0 125. 4 130. 2 135. 6 141. 9 148. 0 152. 1 155. 3 156. 5	33 39 43 47 52 57 62 68 78 88 98 106 112	12 11 5 8 2 6 13 5 11 6 2	15,31 18,01 19,64 21,55 23,59 25,90 28,30 31,21 35,52 40,23 44,63 48,13 50,80

The data for this table were furnished by the Children's Bureau, United States Department of Labor, and is collated from such leading authorities as Holt, Crum, Bowditch, and others. There is a variation in height and weight of healthy children of the same age which should be taken into account in using the above figures to judge normal development.

